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SPEEDING UP THE WORKERS

by
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SPEEDING UP THE WORKERS

BY JAMES BARNETT

I. THE SPEED-UP

AFTER slaughtering millions of workers in the war "to make the world safe for (capitalist) democracy," the bosses launched the Open Shop drive against the unions, accompanied by an offensive against labor generally.

This far-reaching attack is known among workers as the hated "speed-up." Industry is put on wheels, on belts, on conveyors, on the stretch-out. These devices in connection with machinery are arranged by the employers' experts with the special purpose of relentlessly "setting the pace" and driving the workers. The full force of the machinery of the whole shop is made to fall on every worker. A thousand mechanical slave-drivers continually hammer the backs and muscles of each man, setting an exhausting and killing pace.

This systematic speed-up is the core of "capitalist rationalization." In other words, capitalist rationalization is essentially the reorganization of labor processes according to a definite system, with the specific, dominating purpose of intensifying labor to the utmost by controlling and speeding-up the workers. For employers it means greater profit and more wealth. For the workers who produce that wealth it means a harder and faster pace, more accidents and a shorter life, more production and greater unemployment, longer hours with fewer rest periods, increased wage cuts and a lower standard of living.

Speed-up Murders and Maims

While employers are trying to increase profits, the speed-up is bringing disaster to the working class. The slaughter of workers in industry goes on more rapidly than ever before. Every 15 minutes, day and night, a worker is plunged into a vat of molten steel, burned on electric wires, broken on machinery, dies like a rat in a mine explosion, or perishes because of some other industrial hazard. Every 9 seconds a worker has a leg cut off, his fingers chewed up, an eye burned out with steel chips, or suffers some other non-fatal accident. Accidents for which workmen's compensation was due increased by more than one-fourth between 1919 and 1923, and have mounted higher since then. Especially bad is the increase in the more severe accidents. According to the American Engineering Council, the increase in accident rates is a direct result of the "increased intensity" of industry, the use and greater speed of machinery which have marked the last few years. Besides accidents, no one knows how many cases of sickness, chronic fatigue, and undernourishment are due to the increased speed of industry.

As the speed-up is increased, the life of the worker is shortened. The greatest loss in the worker's expectation of life has occurred in middle age, when he should be at his best. At the age of 40 his expectation of life has dropped about one and four-tenths years. Older and younger workers have also suffered. The 17-year-olds of 1927 will die almost a year younger than the 17-year-olds of 1921. The 22-year-olds may expect to have their lives cut short more than a year.

The death rate for the workers is much higher than for the general population. Between the ages of 45 and 55 it is almost one and one-half times as high; between 55 and 65 it is one and one-third times as high. A boy of 20 working in industry may expect to live 7 years less than the non-industrial boy. The United States Bureau of Labor Statistics admits that the

“general speeding up of the workers” is “particularly dangerous” to the young wage-earner.

Speed-up and Unemployment

As part of the systematic speed-up, aided by combination of plants, mechanical devices and the reorganization of work, the employers have thrown hundreds of thousands on the streets. With 100 men doing as much as 150 did before, joblessness is bound to result. At the same time that industry is producing more than ever before in its history, unemployment has grown far beyond any point previously known. For the first time the total number at work in manufacturing in the United States absolutely decreased. Even before the crisis of 1929 there were close to a million fewer workers in manufacturing industries than in 1919, a decrease of about 10 per cent (from 9 million to 8.1 million).

The permanent mass unemployment of the present period is so clearly connected with the introduction of speed-up methods and devices that economic experts have given it a special fancy name, “technological unemployment.” During the “prosperity” period it is estimated that from 2½ to 4 millions were usually out of work. With the 1929 crisis this number increased to a figure admitted by the head of the United States Census Bureau to be between 7 and 9 million on April 1, 1930, with constant further increases as the great crisis develops. Besides those permanently or temporarily unemployed there is an unknown number who have only part time employment. This is what “prosperity” and increased production have brought to the American worker.

Longer Hours

In addition to the methods of intensifying labor already mentioned, the employers also try to make the worker toil just as long as possible. The intensity of the work, and the fatigue of the worker, sets limits to the number of hours that

he can put in during a day. But the employers are ever seeking to push him to, or even beyond, this limit. If he cannot stand the pace or is quickly worn out, a new man is put in his place. The employer can increase profits by taking young workers and using them at maximum intensity while they are at their best. When they break down under the terrific speed, out they go. The employer does not have to take care of them. While workers have put up militant struggles for shorter hours, capitalist rationalization has been breaking down these gains. Although some trades have obtained slightly shorter hours, the Hoover report on *Recent Economic Changes* shows that the general tendency in recent years has been in the opposite direction.

The Race Track for Wages

Besides conveyors, material-handling equipment, and more highly geared machinery, the piece rate and the bonus systems of wages are also used to speed up the workers. Under the piece rate system, as soon as wages increase the rate is cut. The worker is compelled to go faster and faster in a frantic effort to maintain his earnings. It is estimated that one-half or more of the industrial workers are on the piece rate, bonus, or other "incentive" system. One of the clever methods is the gang bonus or gang payment system. The pay depends upon what the gang produces. It makes the workers drive one another.

However, where belts and conveyors are used it is not necessary to have the piece rate plan. The belts set the pace and the workers must do so many pieces an hour or lose their places.

Not only do the workers fail to receive extra wages in proportion to the extra amount of work which they are compelled to do, but it is a general practice under capitalism for wage cuts to accompany rationalization regardless of whether or not the workers are on the piece rate or bonus system.

Wage cutting is taking new forms. Open cutting is becom-

ing more commonly replaced by a disguised and systematic wage cutting. Such methods as shifting men from job to job or from one department to another, laying off and rehiring, piece rates on new models, etc., are used to camouflage wage reductions. One common method of cutting wages is to fire men and rehire them at lower wages. Another is to throw men out of work and replace them with lower paid women and young workers. Modern speed-up methods make this replacement much easier. In New England rubber plants, for instance, men have been laid off and signs put up saying "Only girls wanted." The girls receive \$4, \$5, and \$6 per week. A Paterson, N. J., company laid off 1,600 men and gradually filled their places with girls at less pay. In Detroit male auto workers are often found tending the children at home while their wives and daughters work in the plants. In many shops boys are replacing their fathers.

The Worker's "Reward"—Lower Standards of Living

While annual production increased rapidly during the "prosperity" period, the share of the wage earners was growing steadily less. In 1921 the share of the new value added by manufacture received by wage earners amounted to only 44.8 cents out of each dollar. It kept shrinking until by 1927 it was only 39.3 cents. In no year of the index which begins with 1899 has the wage-earners' share of the wealth produced in industry been so low.

Paul H. Douglas, author of *Real Wages in the United States*, admits that between 1923 and 1927 the real wages of the worker remained on a plateau. The workers know well that this "plateau" was no "mountain" as prosperity propagandists want them to believe. For thousands of workers it was a valley.

The average weekly wage in manufacturing industries in 1929 was about \$26. But such average weekly figures hide the actual situation. There are always many more who get below the average than who get above it. Furthermore, these "average" weekly wages tell nothing about the number of weeks

a man may be unemployed between jobs. Hence they furnish no indication of how little he actually gets during the year.

In addition, the great number of workers thrown out of jobs, and the amount of part-time work which existed during "prosperity" must be remembered. It is evident that the standard of living of the working class as a whole has not only failed to improve, but has been getting worse.

Since the beginning of the crisis a terrific barrage of wage cuts has accompanied the increasing unemployment, in spite of all the promises made by Hoover that this would not be done. During August, 1930, occurred the greatest drop of the present crisis in employment. And the wages paid out dropped almost twice as fast as employment, indicating widespread wage reductions.

II. MANUFACTURING INDUSTRIES SET THE PACE

The great manufacturing industries, conditions in which have just been described, play a leading part in modern industrial life. Therefore, changes in factory work have a profound influence upon other fields of economic activity.

Since the war, and especially after the recovery from the hard times of 1920-1921, American manufacturing industries have shown a surprising increase in the amount of goods produced per worker, due primarily to this increased speed. From 1899 to 1919 the increase per year in the output of the worker in representative industries was between two-tenths and three-tenths of one per cent. From 1919 to 1927 the increase per year was at the high rate of 6.7%. During the 20 years between 1899 and 1919, output per worker had increased only 4.7%, while in the 8 years following 1919 it increased 53.5%. On the average a worker had to produce over one-half more in 1927 than in 1919. Striking as these figures are they do not show the full intensity of the increase. Although the war laid the immediate basis for this speed-up movement, it was not until the severe depression of 1920-1921 that its blows began to fall with their full strength.

Automobile Manufacturing

The automobile industry furnishes a good example of capitalist speed-up methods. This is called a "young man's industry," for only young people can stand up for long under the terrific pace. Bosses hire workers as young as possible and wear them out fast. Men over 40 or 45 are laid off. In these factories are the notorious "belt" and the "howling foreman." A touch of the button and the conveyor accelerates. In some places the belt goes so fast that the workers cannot leave it for a second. Robert W. Dunn in his *Labor and Automobiles* reports that on one line the speed was 40 motors an hour in 1919; in 1925 it was 60 an hour. On other lines the 1919 speed of 120 units an hour increased to 180 an hour by 1925. In one Ford plant a change from three belts to one fast line made six men do 12 cylinder blocks a minute instead of the former nine. In 1925 Ford was turning out 31,200 cars a week *with the same machinery* which had produced only 25,000 cars a week in 1920. The Ford factories are set to get the last possible ounce out of the workers. Personnel officers in other plants have declared that they do not hire ex-Ford workers if they can help it, for when men have worked with Ford for 5 to 8 years they are about played out.

In addition to the belt, the other methods mentioned, such as piece work and the bonus, are also used to drive the auto workers. These are still further intensified by inter-gang and even inter-department competition.

This burst of speed in automobile manufacturing has been much greater since the war than before. Output per man-hour increased 120% between 1919 and 1925, while it had increased only 41% between 1914 and 1919. At the same time the use of power increased more slowly than before. During the later period wages dropped and hours increased.

(Further information on speed-up and output in motor vehicle manufacturing is contained in a report issued in February, 1931, on *How the Crisis Hit the Auto Workers*, by the Labor Research Association.)

Iron and Steel

In the great basic iron and steel industry speed is also being increased. Output for pig iron per man-hour increased 139% between 1919 and 1927, while during the previous 20 years it had increased only 93%. In steel works and rolling mills, the increase in output per man-hour was as much during the 8 years from 1919 to 1927 as it was for the 20 years from 1899 to 1919. It is significant to note that between 1923 and 1925, while the blast furnace industry was making its great gains in output, the use of power in the furnace industry actually diminished. The reduction in number of workers between 1919 and 1927 was approximately 7%. In certain cases two steel workers now do as much as 14 did in earlier years; seven men cast as much pig iron as 60 did formerly; in open hearth operation one man does the work of 40; two men can unload as much pig iron as 128 used to. Some of this increase is due to greater use of machinery, but a great deal is due to the increased intensity of work in this man-killing industry.

Hours in iron and steel are still extremely long. They averaged 54.6 a week in 1929. Some men put in over 84 hours a week *on the average*. About 5% of them work more than 72 hours a week, and 14% over 60 hours, while 69% work over 48 hours a week *on the average*. During the last few years there has been an increase in the proportion working 84 hours and a decrease in the proportion working 48 hours a week.

Textiles

The textile manufacturers have discovered that "operatives can tend twice the number of machines" that they used to tend. "In many cases operatives are tending three times as many spindles and four times as many looms."* This system

* See Grace Hutchins, *Labor and Silk*, International Publishers, New York, 1929; also Robert W. Dunn and Jack Hardy, *Labor and Textiles*, International Publishers, New York, 1931.

of speed-up is called "labor extension" by the bosses, and "stretch-out" by the workers. The bosses call it "labor efficiency" but the workers know it as a harsher pace. The manufacturers admit that the workers are "earning larger profits for their employers"!

Wages in woolen mills dropped from an average of \$30.33 a week in 1920 to \$25.34 in 1928. During the same period weekly wages in cotton mills fell from \$24.86 to \$17.30. More than one-half of the cotton operatives and more than one-third of the woolen mill operatives are on piece rates. Hours in cotton mills in 1928 averaged 53.4 a week. Thus the cotton mill workers gave the bosses over 1½ hours more a week in 1928 than in 1920. In woolen and worsted mills the bosses added an hour more, the average in 1928 being 49.3 hours a week. Lengthening hours without increasing the daily pay is a frequent method of cutting wages.

Production in woolen and worsted plants increased about two-thirds, and in cotton about 10%, between 1923 and 1927. Unemployment in textiles is chronic. Within the five years, 1923 to 1928, of each 100 woolen and worsted operatives, 24 were thrown out of work. In cotton, during the five years 21 out of every 100 met the same fate.

III. OTHER EXAMPLES OF SPEED-UP

In addition to manufacturing industries, conditions in three other major fields of economic activity give a more complete picture of the situation.

Mining

In bituminous coal mining, speed-up of the workers has gone along with a considerable increase in mechanization and a marked reduction in the total number of coal mines.*

* See Anna Rochester, *Labor and Coal*, International Publishers, New York, 1931.

Roughly one-third of the bituminous mines that were producing coal in 1923 are now permanently closed.

More and more of the total tonnage is undercut by machine and many of the cutting machines themselves are much larger and more powerful than those that were in use before the war. Each machine crew then, is producing more coal than formerly. In recent years mechanical loaders have also been developed for underground work. About 7% of the bituminous tonnage is now deep-mined coal mechanically loaded and another 4% is strip-mined, ripped from the seam by giant power shovels. Some types of underground loading machines are merely lifting conveyors which must be fed by hand shoveling. In this way a speed-up exactly comparable to the speed-up of the factory conveyor belt has been brought into the mine.

But even apart from this, the bituminous operator has begun to schedule all underground operations. As his investment in machinery increases, he becomes more and more insistent that all the processes must be timed to keep the machinery—and the workers—busy without interruption.

While the workers on the job are thus pushed to getting out more coal daily, their wages have repeatedly been cut. The average daily earnings of miners and loaders in the bituminous industry (including pick miners and cutting machine crews, hand loaders, and loading machine crews), had fallen from \$6.56 in 1924 to \$5.50 in the spring of 1929, according to wage studies by the United States Bureau of Labor Statistics. Although miners had on the average a few more days of work in 1929 than they had in 1924, few of them could bring their total earnings for the year up to the earlier level. They must work harder; in most cases they produce more coal, and the capitalist class is ruthlessly pushing down their standard of living. In the meantime, nearly one worker in four has been crowded out of the industry entirely. Even before the general crisis of 1929-1930, some 200,000 coal mine workers had been turned out to join the mass of the unemployed. Similar trends are becoming evident in anthracite.

Iron, copper, and other mines, are even more thoroughly under the heel of finance capital and monopoly than is coal. In them the speed-up can therefore be introduced the more readily.

Transportation

According to the "general efficiency" index of the Bureau of Railway Economics, which is to a large degree a measure of increased speed and intensity of work, the railroads were 21.6% more "efficient" in 1929 than they were during 1920-1924. This means that trains are becoming longer, heavier, faster. The gross tons per train-hour, a measure of load and speed, has increased 65% between 1920 and 1929.

According to Hoover the rapidity of freight movement is 30% to 40% greater than at the close of the war. Between 1916 and 1926 the output per man-hour increased 40.5%. Authorities state that a human being cannot stand up against a locomotive of 40,000 pounds tractive power and shovel coal into it for 8 to 12 hours. Still the *average* locomotive tractive power in 1926 was over this figure. In 1919 it was about 36,000 pounds. It makes some difference to a fireman whether he has to shovel 10 tons of coal in 10 hours, or 20 tons in 16 hours, or seven or eight tons in two hours on an express. These facts help to explain why the average age at death of trainmen and firemen is 37.4 years.

From different parts of the country come reports of increased speed-up in yards and railway shops. Such methods as elimination of rest periods, cutting of lunch time, extra hours of work, are common and growing.

Along with this speed-up on the railroad lines goes increased unemployment. In 1929 there were between 300,000 and 350,000 fewer men employed by the railroads than in 1919. The average yearly wage in 1920 was \$1,820, after which it dropped sharply. In 1927 it was \$1,677, a decrease of about 8%. The average regular wage of the workers is actually lower than this, since this figure includes the salaries of high execu-

tive officers as well as all overtime and bonus payments made.

Although there is a law establishing a basic 8-hour day on the railroads, the men generally work much longer. Many work such long hours that their full time is equivalent—on an 8-hour basis—to 16, 17, 18, or even 19 months a year.

In its relation to the railroads the government is clearly shown acting as a tool of big business. By the Transportation Act of 1920, the Interstate Commerce Commission was instructed to plan for the consolidation and merging of railroads. This will bring them more closely under the power of Wall Street bankers. According to the most conservative estimates, this will throw out of the industry 500,000 workers. Not only has the government worked as a tool of finance but it has tried to tie up the workers under the Watson-Parker law and the Board of Mediation, which give the employers enormous advantages in labor disputes. The railroad brotherhood and A. F. of L. officials not only endorsed this law, but helped to draw it up and to put it through Congress.

Another reason for this close supervision and capitalist rationalization of railroads is their military importance. The reorganization of the railway system is obviously part of the preparation for the next imperialist war.

In addition to the government working hand in hand with the bosses, the conservative railway unions have been active in introducing class-collaboration schemes, such as the B. & O. plan. These schemes work directly toward the introduction of rationalization with its systematic speed-up. As the *Monthly Labor Review*, a government publication, states: "Perhaps the greatest amount of coöperative effort has been directed toward the improvement of operating efficiency" through the reorganization of the distribution of work, transfer of workers, different methods of work and similar efforts.

In the merchant marine, a key transportation industry in case of war, we also find the speed-up being introduced. Small ships are being replaced with larger ones. One 10,000 ton ship with 40 men is replacing two 5,000 ton ships with 70 men. For every 3,000 gross tons in the United States merchant ma-

rine, there were 10 fewer jobs in 1926 than in 1916.* Considering both freight and passenger steamships, during the same 10 years the cargoes increased by 86% while the men employed increased only by 18%. Fewer men are being put in the hold and at the same time over 40,000 seamen and long-shoremen roam the waterfront searching for work.

Agriculture

The increase in production per worker in agriculture has not been so great as in industry. Still it was two-thirds faster between 1919 and 1926 than from 1909 to 1919. The exploitation of farm laborers and poor farmers has been greatly intensified in general by other means than the direct speed-up.

Farm wages, according to official figures, have not kept pace with the greater cost of living. Male agricultural wage workers form 21.7% of all wage earners in the United States, but they receive only 10.5% of the national wage total. They work long hours under miserable conditions.

But the introduction of machinery which is taking place tends to bring aspects of the speed-up for farm labor. Also on some large scale and on some smaller scale intensively cultivated farms, methods have been introduced somewhat similar to the systematic speed-up of industry.

For instance Campbell, the world's largest private wheat grower, has installed "odometers" on his Montana farm. "The machine operators are paid in accordance to the mileage they cover, with adjustments for fuel consumption, repairs required, and a bonus for continuous service." On the Walker-Gordon Milk Company's farm in New Jersey, a large turn-table has been set up. "For 24 hours a day cows, one by one, step upon the turn-table. As it revolves men brush and clean them and attach the cups. And at the end of the revolution the cow steps off and returns to her stanchion." The cow has been cleaned and milked. On Ballard's Indiana farm, work is so arranged

* For further details see, N. Sparks, *The Struggle of the Marine Workers*, International Pamphlets, New York.

that one man can feed 1,000 hogs in an hour. These examples are not yet typical, except on a relatively small number of farms.

For the poor and middle farmers, who farm over 60%* of the approximately $6\frac{1}{3}$ million farms in the country, economic and financial pressure and ruinous competition, represented by creditors, bankers, landlords, machine manufacturers, middlemen, and markets are forces that "set the pace" and drive them so mercilessly. Since 1914 the prices of what the farmer buys have risen 62% while the prices of what he sells have risen only 38% in 1929. Bankruptcies have increased over 1,000% since 1919 and the actual situation is much worse. An indebtedness said to be around 20 billion dollars, upon which the annual interest alone amounts to a billion dollars or more shows the trend of enslavement. Taxes have been shifted to the farmer, who now pays about two and one-half times what he did in 1914. About 4,500,000 people were forced off the farms between 1919 and 1929.

While new machinery is being introduced among more well-to-do farmers, there comes an actual stagnation of technique and a tremendous waste of labor, fertility, stocks and equipment on the part of millions of middle and poor farmers who cannot afford to buy and operate tractors and other new machinery necessary to compete with the mechanized farms. Many kinds of new methods will not be used extensively so long as the poor farmers, their families and farm laborers can be forced to tighten their belts and count their excessive toil as nothing. How much of the increased production per farm worker is really due to an increase in unrecorded child and woman labor we do not know, but it must be considerable. While 25% of the population is now engaged in farming, an authority estimates that with the newest methods we might get along with only 10%.

The effect of the farms which have new machinery, including the comparatively few which have introduced "factory"

* This figure is based upon conservative estimates and is no doubt much too low.

methods is economically very significant however, and out of all proportion to their numbers. Non-mechanized farms are faced with a disastrous situation. They must compete with the new methods and sell their products at such low prices that they are often unable to maintain a minimum subsistence even by utilizing the labor of the whole family.

IV. SPEED-UP AND DECLINE OF CAPITALISM

Along with a great increase of productive possibilities we have seen an increase in the industrial reserve army of unemployed and in the poverty and misery of the working class. On top of all this, in October of 1929, came the crisis and the beginning of harder times. We are now told that we have produced too much. Goods cannot be sold. Factories must be closed down. More men must be thrown out of work. There must be more part time, more starvation, more sickness and misery for the workers and poor farmers.

The rationalization movement grew out of the great World War crisis of capitalism and has in a short period helped to put us in another crisis which is one of the worst ever experienced. Thus, rationalization which was to help put capitalism on its feet after the war, has instead proved to be a driving force hastening the present crisis and the threatening imperialist war.

The elements of this far flung systematic speed-up existed previous to the war, and have their roots in the industrial system. The fundamental characteristics of rationalization were analyzed with remarkable clarity by Karl Marx. The new features which resulted from the war crisis were (1) that labor processes began to be reorganized in whole industries and even nationally, and (2) that this reorganization is according to a positive system with the special and predominating purpose of getting everything possible out of human labor and thus increasing profits. Long before this, so-called scientific management contained germs of rationalization. Later the conveyor system of "flowing work" multiplied the possibili-

ties a thousandfold. During the war more definite beginnings could be seen in the speed-up in machine shops, arsenals and ship yards whether operated privately or by the government. Capitalist rationalization is scientific management on a bigger scale and in a new form.

Speed-up the Key to Capitalist Rationalization

Capitalist writers explain capitalist rationalization as the reorganization of production and distribution by which economies are effected and profits are increased. In this connection many things are done. New machinery or technical processes may be introduced; products may be simplified or standardized; production is speeded up; workers are eliminated; the less profitable manufacturing plants may be closed down; new trusts are formed, while old ones extend their sway over an industry by absorbing competitors. In fact, means of introducing rationalization and its effects are so extensive that changes occur in the whole economic structure, even to credits, banking, and selling.

Thus the false conception develops that capitalist rationalization means: (1) a "rational" or "sensible" organization of industry, (2) increasing efficiency by using power, machinery, and other devices to produce more goods with the same or less expenditure of labor.

But a rational organization of industry is impossible in a system run for profits instead of for production of socially necessary goods. The drive for profits, which is the real aim of capitalist rationalization, is continuously disorganizing industry. Facts completely contradict the theories about "A New Industrial Revolution," about "Organized Capitalism," or a "New Growth" of capitalism. On the contrary, figures on the increase of fixed capital, buildings and machinery, show a decided reduction in the rate of growth in the United States after 1922. It has been "less active." And, as we have seen, capitalist rationalization itself immeasurably intensifies the contradictions of the capitalist system.

Nor is increased efficiency the object or meaning of capitalist rationalization. Its central purpose is to arrange work and the use of machinery, belts, and conveyors, to enforce the highest intensification of labor by controlling and speeding up the workers. It is true that some increased efficiency generally goes along with capitalist rationalization. But it can proceed without new machinery and increased efficiency. Not only is increased efficiency incidental; but capitalist rationalization itself sometimes seriously retards the introduction of new machinery and more efficient methods. Especially is this true where there is monopoly control of industry. And it is precisely through large scale monopoly and financial control that capitalist rationalization is being introduced so rapidly.

Profits depend upon the amount of extra work obtained from the laborer, not on the amount of goods produced. In this period of declining world capitalism, methods of directly increasing the ratio of surplus labor come more sharply into evidence than during the period of capitalist development. The center of gravity of capitalist organization is shifted significantly. With the many means of introducing the systematic speed-up, this becomes the outstanding method of increasing exploitation, the process around which wage-cuts, the firing of workers and the like revolve.

Even conservative authorities are very positive on the point that the systematic speed-up, and not increased efficiency or new machinery, is the core of capitalist rationalization. Facts from the Hoover report on *Recent Economic Changes* show that the increase in output per worker, which has occurred since the war is not correctly explained by the defenders of capitalism. Says the report: "None of these figures [about power and machinery] indicates changes in the degree of utilization of either machines or existing power equipment." As a matter of fact the rate of increase in use of power was only one-third of what it had previously been, while there was also a decided slowing up of the increase of manufacturing machinery after 1922.*

* Based upon figures corrected for fluctuation in the value of the dollar.

On the contrary, Hoover's report says that it is "in the great *acceleration* . . . that we find the key to the understanding of our recent expansion." And further "*an intensification of activity*" was taking place, "rather than any fundamental change." Numerous other representatives of industry and finance state with equal positiveness that there was "no development of new productive processes during the period" (1919-1927). Reorganization of processes of work and the increased use of belts and conveyors explain the upward leaps of production. They tell the story of increased exploitation, due to greater speed and intensity of labor. As the Hoover report itself states, "In fact, the *control of production* which is being secured through the aid of modern material-handling machinery is probably the greatest single improvement which has come in the technical operation of manufacturing establishments since 1919." The United States Bureau of Labor Statistics also clearly points out this tendency "to push production to the *highest possible point* by improved machinery, new mechanical appliances, conveyors, power hoists, power trucks, and by *speeding up the workers*." (Emphases mine—J. B.) Here is the heart of the situation. This new conveyor machinery has "set the pace of the production process"; it acts as "pace-maker for the speed of production." Here is the mechanical slave driver who beats the workers on to exhaustion.

The working class is discovering what capitalist rationalization means. Struggles and strikes against the systematic speed-up have been breaking out in this and other countries. Workers do not fight new machinery or new inventions. In fact, the more class-conscious workers see in them powerful means for raising the standard of living and for releasing workers from many degrading tasks when industry is organized under a workers' and farmers' government. But they do fight capitalist rationalization—the use of machinery and inventions to create unemployment, systematically intensify work, and carry on a wholesale attack on the working and living conditions of the laboring masses.

The country in which the technical basis for capitalist rationalization had been developed to the highest degree was the United States. It was in Germany, however, that the movement first took on the most articulate character. Germany was the one of the "great powers" which suffered a most severe collapse as a result of the war. Capitalism there was in a weak and shattered condition. The workers were mobilizing their forces to overthrow it. Strenuous efforts and bloody terror were necessary to put down the workers' revolt. The capitalist class was kept in power by the aid of the Socialists and the government which they headed, and by the force of the allied armies. In this broken but highly industrialized sector of capitalism, the capitalist rationalization movement took a most clear-cut form, and was forced upon the workers with the aid of the Socialist Party government working in hand with the capitalist class. Historically, capitalist rationalization is thus bound up with capitalist decline. It is a sign, not of capitalist strength as the Socialist Party would have us think, but of sharper class struggles and a weakening and decaying capitalism. It is a supreme effort to recover, made by world capitalism staggering from crisis and its fundamental contradictions. But this supreme effort only magnifies and concentrates the very antagonisms from which it tries to escape.

The Class Struggle

It is easy to see how the speed-up has helped to push us into the crisis. Industry is put in constant danger of producing "too much," for labor is paid so little that it can buy only a small portion of what it produces. Now with the present crisis, capitalist rationalization has openly bared its teeth and claws. More intense attacks are launched against labor, with wage cuts, unemployment, and all that goes along with the new wave of speed-up. This is the best capitalism can do. It is like a dope fiend who, the sicker he gets must take more dope, until his final collapse. Capitalism, grown sick on rationalization, must take a stiffer dose. But it is clearly im-

possible for the capitalist system in the face of the rapidly growing revolutionary movement to save itself. Not only does the systematic speed-up make the struggle more far-flung and severe within each country, but it also increases international conflicts for raw materials and markets, and leads to colonial oppression and colonial revolts. Imperialist rivalries are tremendously sharpened. And, again like a dope fiend, capitalism in its final struggle becomes violent. It strikes out against labor and its own rivals with ferocious and desperate cruelty and cunning deception.

The forces of monopoly and the capitalist state are used to fasten rationalization upon the workers. The state becomes more and more openly a capitalist dictatorship, turning into a fascist state which attempts to club the workers into submission. In the United States that is very clearly seen in the mobilization of state and local militia and police to help the bosses to break strikes.

The government itself introduces capitalist rationalization. For example, mail carriers are trailed and timed to see that they walk fast enough and do not waste time. The Post Office Department has been throwing men out of work and speeding-up those who are left.

All enemies within labor's ranks, who try to tell labor that capitalism is its friend, are called upon to give aid to the movement for capitalist rationalization. The American Federation of Labor officials, and other reactionary labor leaders work with the state and the bosses to introduce capitalist rationalization schemes under the guise of "union management coöperation." We are all familiar, too, with the wave of company unionism and "industrial peace" propaganda used to secure the "coöperation" of the workers with the systematic speed-up and the more intense exploitation of the working class.*

But the most serious enemies are those who pose as militant leaders of labor but who really betray the working class. The

* See Robert W. Dunn, *Americanization of Labor*, International Publishers, New York.

“Socialist” and Laborite, Ramsay MacDonald, head of the English Labor government, is one of the clearest examples of this type. He is doing all he can to reorganize British industry for the benefit of the capitalist class, having come into power for that purpose. He has already organized the Bankers Development Company to load capitalist rationalization on the English workers, and has helped to force wage cuts on textile and other laborers. In India and China he carries out ruthlessly the work of imperialism. These who claim to be for the workers, but who in reality use their power to drive the toilers back under the control of the bosses, are called social-fascists. They are worse enemies of labor than those who openly oppose working class interests.

The officials of the Amalgamated Clothing Workers play this social-fascist rôle by putting over the bosses' speed-up. They proudly boast that when the employers want increased productivity, they do not go to efficiency experts but come to the union. They claim that their speed-up methods are a benefit to the workers.

Another group which uses radical sounding words is gathered around the Conference for Progressive Labor Action. It fails to face squarely the problem of speed-up and the harmful effects of rationalization. In a pamphlet called *Labor's Share in the Late Lamented Prosperity*, a member of this group states, for example, that “no general answer can be given” to the question: “Does he (the worker) suffer more from fatigue or monotony than formerly?” This pamphlet also stalls and hesitates to take a stand on other vital matters, giving the worker reader the impression that there is a question as to the acuteness of his exploitation under the rule of capitalism. The general rôle of this group is to confuse the worker with a weak variety of “labor education.” At the same time it attacks the Communists and the Left Wing Unions. Such a group of liberal-Christian Socialists are good phrase-mongers. Their function is to delude the workers and lead them into the hands of their enemy—the capitalist class.

In spite of all the forces engaged in putting over the sys-

tematic speed-up, the working class is answering with militant struggle and organization. In the United States there is one union center, the Trade Union Unity League, which has been carrying on a clear-cut fight against capitalist rationalization. To this union center are affiliated such militant unions as the Auto Workers' Union, the National Textile Workers' Union, the National Miners' Union, Metal Workers' League, and the Marine Workers' Industrial Union, as well as genuine Left-Wing groups of workers in the A. F. of L. and other conservative unions. These unions are industrial unions with the shop as a unit. Shop committees in each shop voice the demands of the workers there; and behind these demands stands the strength of the whole union. This has proved a most effective type of union organization. In connection with the struggle against the speed-up, these unions make concrete demands for unemployment insurance, shorter hours, higher pay, more protection for labor, and equal pay for equal work, calling for the unity of the whole working class regardless of race, sex or age. They call upon the workers to Organize and Strike against the Speed-up and against Wage Cuts.

As has been shown when the workers strike against the speed-up and other grievances, the bosses' government, including the courts, the police, and the militia, is turned loose on them. Economic struggles are transformed into political struggles. Consequently the workers are turning in greater numbers to the leadership of the Communist Party, which stands for a new economic and political system in which the workers and farmers shall rule.

Internationally, capitalist rationalization leads to new imperialist wars in which the working class will be the victim, and to the trampling of the rights of colonial and subject people under imperialism's ruthless feet in the mad scramble for materials and markets. The international struggle against these forces is led on the one hand by the Red International of Labor Unions to which the Trade Union Unity League is affiliated, and on the other hand by the Communist International with its affiliated sections in different countries.

While these organizations carry on a powerful opposition to rationalization as put through by the capitalists to increase their profits, they have given full support to rationalization as carried out by the workers of the Soviet Union to shorten the hours, raise the wages, and better the conditions of the workers and peasants.

V. SOCIALIST RATIONALIZATION IN THE SOVIET UNION

In the Soviet Union, the workers realize that labor is the only producer of value. Their whole industrial system is built around the systematic and scientific reorganization of work in all industries for the purpose of using labor-power most efficiently and increasing production. For this they are introducing new machinery and the latest methods of work from the capitalist countries. However, Socialist rationalization is fundamentally different from capitalist rationalization. Labor is not exploited. Capitalist restrictions to increased efficiency are removed. For the first time in history a rational, organized and efficient development of industry is established, because production is carried on to satisfy the needs of the people. The speeding up of labor, controlled by the workers, is a very different matter from the speed-up controlled by employers and used for a more intense exploitation of labor. Workers who have suffered from the speed-up in the United States would not recognize as the "speed-up," the drive for greater output and faster production in the Union of Socialist Soviet Republics. Fruits of the drive are a workday of 7 hours or less, broken by proper rest periods; rising wages instead of wage-cuts; scarcity of workers instead of scarcity of jobs; constant safeguarding and genuine concern for the health and well-being of the man or woman at the machine; a steadily rising standard of living.

Industrial production in the Soviet Union is increasing about five times as fast as it has in the United States (27-30% compared with 5-6%). Because of the present crisis, produc-

tion in the United States in six months dropped off 20%, while the U.S.S.R. is steadily going ahead. Economic crises have been eliminated in the Soviet Union. There is no such thing as producing "too much" because wages are being raised so that the workers can buy and use any "surplus" goods. The output per worker is increasing over twice as fast as in the United States (14-15% in the U.S.S.R. and in the U. S. less than 7%). It is calculated that with Soviet industrial production increasing at the present rate, in 15 years it will be 28 times as great as now, and in 18 years it will be 100 times the present amount. Thus by 1948 production of the Soviet Union will be five times that of the United States.

In the Soviet Union all of industry and economic life is planned according to the needs of the people and an orderly growth of production.* Under the great Five-Year Plan, industrial development is charted for five years ahead, from 1928-1929 to 1932-1933, in the most detailed manner. Not only are they planning industry for five, but also for 10, 15 and 20 years ahead. Such organization of economy would be absolutely impossible under a capitalistic system. Capitalist papers speak of the Five-Year Plan as the Soviet's "amazing industrial experiment," the "most extraordinary enterprise in the history of the world." They called it "fantastic" and "impossible." But it has been so successful that it will be completed in *four years*.

In the Socialist rationalization of agriculture the Soviet Union has leaped far ahead of the Plan.** In 1927-1928 about 3% of the land was socialized into state and collective farms. But by the autumn of 1931, 75% had been socialized and combined into great collectively operated farms. Machinery is being introduced on these farms at a rate unknown in the capitalist world. This is in sharp contrast to the situation in the United States where the best machinery is being utilized on the farms only to a limited extent, and where large scale

* See G. T. Grinko, *The Five-Year Plan of the Soviet Union*, International Publishers, New York, 1930.

** See Anna Louise Strong's pamphlet, *Modern Farming—Soviet Style*, International Pamphlets, New York, 1930.

farming is relatively weak. The Soviet Union, not being content with building two tractor plants with a joint production two and one-half times that of the United States last year, is building a new \$500,000,000 tractor plant at Kharkov with an annual production of 500,000 machines, or five times the production of the other two plants put together.

In addition to the Five-Year Plan for socialist rationalization there are the "shock brigades," "socialist competition" and the "continuous working week," all of which have been invented or initiated by the workers themselves, to help speed work and production. The shock brigades consist of groups of workers, especially young people, who are ready to be sent into any industry or any department which may need special help. They are workers fired with great zeal for building up socialism, ready to undergo any hardships necessary to pull up the weaker sections.

Socialist competition has given a great impetus to production. Different plants vie with one another in their work. They enter into agreements and contests pledging themselves to the completion of their industrial program, to decrease costs, increase labor productivity, eliminate waste, and the like. The workers enter into these agreements with great enthusiasm. A great deal of publicity is given these challenges and the people watch the progress of the competition with keen interest.

Perhaps one of the most novel methods of socialist rationalization is the Soviet 5-day week, *each worker receiving one day of rest after every four days of work*. This was introduced in August, 1929, and in the summer of 1930 about two-thirds of Soviet industry was already working on this basis. In 1931 it was found best to adopt a 6-day week in some plants. Instead of the 52 Sundays and 10 religious holidays which existed under the Tsar, the workers now have about 72 rest days and in addition five revolutionary holidays.

When the 5-day week was introduced it was strictly ordered that there should be no addition to the working days, that the workers should have just as many rest days as under the 7-day

week. As we have seen they actually get 15 more days of rest a year than before. Besides these regular rest days the worker of course gets his regular annual vacation of 15 days with full pay. In hazardous occupations the yearly vacation is a month with full pay.

The 5-day week makes possible the continuous operation of industry. The workers in a factory or a workshop are divided into five groups. Each group has a different rest day. Thus there are always four groups at work in the shop. Under this system the number of working days of the factory for the benefit of society will be increased from 300 to 360 days per year.

It is estimated that the continuous working week will result in an increase of 25% in the output of the Soviet Union. The more frequent rest also helps to preserve the strength and vigor of the worker so that he remains healthier and stronger and is more efficient when he does work. In a factory in Lenin-grad, output increased 20% to 25%, earnings increased 8%, and an additional shift of workers was employed. In another factory output almost doubled. In 35 Donetz coal mines, when the continuous working week was introduced, total output increased 35%, the productivity of labor increased 4%, while the labor force increased by 12%.

Along with these methods the great enthusiasm and energy of the masses in building up their own society are factors of enormous significance in the successful organization of Soviet industry.

For Workers and Peasants

Great care is taken to see that men and women are not overworked. Big laboratories such as are found in the Institutes of Labor are studying work processes in order to eliminate harmful fatigue. Rest periods are arranged so that the workmen will not become too tired from swift work. If the work becomes too heavy it is eased up. As socialist rationalization is introduced, provisions regarding labor protection are

strictly enforced. Millions of dollars are spent yearly for this purpose.

As the output of the worker increases his wage also increases. It is only in a capitalist country that wage cuts to swell profits are regarded as an accompaniment of rationalization. Real wages in the Soviet Union are now 39% higher than they were before the war and if other social benefits such as the system of social insurance, etc., are added, they are 67% higher. During the Five-Year Plan wages will increase 70.5%. For each dollar of wages at the beginning the workers will be receiving \$1.70 at the end. The lowest paid wage groups will get the largest increase in real wages. Since real wages are in terms of purchasing power this means that the workers can actually buy 70.5% more. What capitalist country can promise the workers such a wage increase within a period of five years? Besides this there are tremendous sums spent for social benefits and for all forms of social insurance—insurance for unemployment, for old age, for disability, for maternity. In 1931 alone \$1,290,000,000 was spent on social insurance. The standard of living of peasants has also been jumping upward. New schools, creameries, theaters, industries and other advantages are being brought to rural sections.

The Soviet Union has also solved the problem of unemployment. While rationalization proceeds and manufacturing spreads, not only have the previously unemployed been given jobs but new workers are being drawn into industry. During 18 months following March 1929, unemployment decreased by 75%, and by the fall of 1930 was entirely eliminated. There is now an acute shortage of industrial workers, both skilled and unskilled. New recruits are being enlisted and trained from among the women, youth and surplus agricultural labor.

The Russian workers are working fewer hours a day. The 6-hour day is already introduced in such hazardous trades as mining. By the end of 1931 the 7-hour day embraced 83% of all workers in large-scale industry, and in certain basic industries, such as the oil, rubber, chemical, and iron and steel industries, all workers. By 1933 it will be universal in the

Soviet Union. This in itself represents a remarkable achievement over the long hours of pre-war days. This step will be followed by the 6-hour day in 1938, and the 5-hour day in 1943. "Unemployment will be a thing of the past and all persons under the age of 20 and above the age of 50 will be exonerated from work."

Thus the workers and peasants are rapidly making it possible for themselves to have a higher standard of living, better homes, more leisure, vacations, books, education, automobiles, radios, cultural advantages and comforts—in short, a new life. Over \$2,000,000,000 a year is now being spent on social welfare and cultural work alone.

Decaying capitalism not only multiplies the oppression of workers under their control, but is preparing for a supreme effort to crush the worker's state, the Soviet Union. Ray Lyman Wilbur, Secretary of Interior in Hoover's cabinet, states very clearly the aims of world imperialism towards the Soviet Republic. "Our economic, social and political philosophies [capitalism based upon exploitation, misery and starvation for the toilers—*J.B.*] inevitably must wage a gigantic and fundamental struggle [a terrific war—*J.B.*] with theirs." The militant workers of all countries perceive the danger and answer with the proletarian call to all workers: Defend the Soviet Union! Protect the Workers' Fatherland!

VI. IMMEDIATE TASKS

The workers can expect that capitalist rationalization with its speed-up, wage cuts, increasing accidents and the like, will grow not less but worse as capitalism continues to decline. The ruling class is making more frantic efforts to find ways to escape its difficulties by loading the burden on the laboring masses.

The only way to prevent this is through the organization of strong militant industrial unions. This means the organization of the unorganized and of the unemployed under the leadership of the Trade Union Unity League; and the soli-

parity of all workers regardless of color, age or sex. This includes the full economic, political and social equality of Negro and white, of foreign and native, of colonial workers oppressed under American imperialism and those of the United States.

Since the government is a powerful weapon in the hands of the employers to force worse conditions in the shops and on the land, the workers organize a political struggle under revolutionary leadership against the capitalist state.

The place to begin is in each shop, forming committees of action to organize for the struggle against speed-up, wage cuts and lay-offs; for a shorter working time aiming at the 7-hour day and the 5-day week; protection and adequate compensation for accidents; equal pay for equal work; unemployment, sickness, old age, maternity and other forms of social insurance.

Only through organized struggle can the workers successfully meet the offensive of the bosses and combat the ravages of speed-up.

THE END

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